



BOROUGH OF WIDNES.

ANNUAL REPORT

OF THE

Medical Officer of Health,

FOR THE YEAR 1904.

WIDNES :

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1905

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TO THE TOWN COUNCIL OF THE BOROUGH
OF WIDNES.

GENTLEMEN,

I have pleasure in submitting to you my Annual Report for 1904, on the Health and Sanitary conditions of the Borough of Widnes, giving Statistics of the Mortality Returns, Births, Notifications of Infectious Diseases, and the distribution of the same in the six Wards of the Borough. From these tables it will be observed that the death rate is 17·2 per thousand of the population, and the birth rate 34·0 per thousand of the population.

Two special reports have been issued dealing with Infectious Diseases which occurred during the year, one on the Prevalence of Diphtheria in the Borough, and the other by order of the Health Committee, prepared by my assistant (Dr. C. S. Brebner), on a local outbreak of Enteric Fever. Both reports are herewith appended.

Seven cases of Smallpox were dealt with by prompt removal to the Isolation Hospital (Barrow's Green), vaccination and revaccination of contacts being performed in most cases, with the result that no further cases occurred. This shows the importance of Isolation and Vaccination in preventing the spread of this loathsome disease.

It would be expedient to complete the Smallpox pavilion by adding a wing to the present building. In an emergency such as occurred last year, when the Whiston Sanitary Authority had two beds allotted to them, and in case of further outbreak in the future, it would be advisable to have more accommodation.

With the exception of these outbreaks the Health of the Borough has been satisfactory.

Estimated Population—

I am indebted to Mr G. H. Danby, Secretary to the Education Committee, for the following information :—

Total Number of Houses in Widnes, July, 1904.						
	Number of Houses.	Number of inhabited Houses.	Lock-up Shops.	Number of Empty Houses.	Houses in course of Erection.	District.
	718	604	3	111	0	East
	3586	3256	110	220	18	West
	1844	1561	45	238	0	South
1904	6148	5421	158	569	18	

In calculating the census, and taking 5·6 as the number of individuals resident in each house inhabited, of which there are 5121, the census of 1904 would be 29569, as against 28579 the census of March, 1901.

Births—

The total number of births during 1904 was 1011, giving a birth rate of 34·0 per thousand based on last census.

Table of Births for each Month during 1904 :—

Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec. Ttl.

Males ...	45	44	50	46	47	45	38	46	47	16	59	46	529
Females	47	32	48	39	49	44	24	51	36	25	51	36	482
	92	76	98	85	96	89	62	97	83	41	110	82	1011

Table of Births since 1892 :—

1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	Total
1185	1137	1122	1135	982	1057	1084	1066	999	944	1004	998	1011	14737

Table of Deaths, for each Month during 1904 :—

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Ttl.

Males ...	26	15	23	25	21	17	28	39	18	11	24	29	267
Females	20	20	33	23	31	10	15	36	20	8	25	11	252
	46	35	56	48	52	27	43	75	38	19	49	31	519

A Table of Deaths since 1892, shewing the number of deaths each year :—

1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	Total
587	407	587	421	508	476	539	622	643	515	444	448	519	6766

A Table of Deaths shewing the mortality from all causes at sub-joined ages, during the year 1904 :—

MONTH	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	Above 65	Total
January ...	9	7	5	2	18	5	46
February ...	11	5	3	—	14	2	35
March ...	18	7	3	3	16	9	56
April ...	13	8	—	1	17	9	48
May ...	17	5	3	3	16	8	52
June ...	7	4	2	2	10	2	27
July ...	19	7	2	1	10	4	43
August ...	37	14	3	—	17	4	75
September	19	5	1	3	7	3	38
October ...	5	1	1	2	7	3	19
November	10	2	10	3	16	8	49
December	8	2	5	1	14	1	31
Grand Total	173	67	38	21	162	58	519

Deaths from all causes—

	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria, Croup	Typhus	Enteric	Diarrhoea	Enteritis & Gastro Enteritis	Puerperal Fever	Erysipelas	Phthisis	Other Tubercular Diseases	Cancer Malignant	Bronchitis, Pneumonia and Pleurisy	Other Diseases of Respiratory Organs	Alcoholism, Cirrhosis of Liver	Premature Birth	Heart Disease	Accidents	Suicides	All other causes	All Causes
Under 5	8		4	6		13	68					1	19		34			1	1	6		79	240
Above 5	2	1		8		8	7	7	2		13	20	2	60		5		23	10	2		109	279
	10	1	4	14		8	20	75	2		14	39	2	94		5		1	24	16	2	188	519

Vital Statistics of Whole District during 1904 and Previous Years.

Year	Population estimated to middle of each Year	Births		Total Deaths Registered in the District.			
		Number	Rate	Under 1 Year of Age.		At all Ages.	
				Number	Rate per 1,000 Births registered	Number	Rate
1894	31538	1122	37.40	158	5.3	535	17.8
1895	32057	1155	36.09	240	7.5	734	22.9
1896	32057	982	30.60	150	4.0	474	14.8
1897	32057	1057	32.70	208	6.5	570	17.8
1898	32057	1084	33.80	200	6.2	539	16.8
1899	32000	1066	31.30	218	6.8	622	19.7
1900	32000	999	31.21	207	6.46	643	20.09
1901	28580	944	33.0	180	6.2	515	18.0
1902	28580	1004	35.12	136	4.75	444	15.53
1903	28580	998	34.80	143	5.0	448	15.6
Averages for years 1894-1903	30950	1041	33.61	184	5.91	552	17.84
1904	29569	1011	34.0	173	5.171	519	17.2

Total population at all ages 28580 at census of 1901

No. of inhabited houses..... 5360 „ „

Average number of persons per house 5.6 „ „

Area of district in acres (exclusive of area covered by water) 3039

Enteric Fever—

During the past year 41 cases of Enteric Fever were notified as existing in the Borough, 35 cases being removed to and treated in the Isolation Hospital.

As in previous years the following table again points to the fact that the outbreak and chief centres of infection are identical in time and place.

The Special Sub-Committee inspected these centres and gave strict instructions to have the houses and also the back premises, passages, and privies thoroughly disinfected. These instructions have been most carefully attended to and carried out to my satisfaction.

Enteric Fever Cases notified during the year 1904 :—

		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
WARD.														
Farnworth	...													
Halton	...													
Simms Cross	...	1							2	1		1	2	7
Victoria	...		1						1	3	1	2	1	9
Waterloo	...									3	3	12	2	20
West Bank	...						1		1	3				5
TOTAL	...	1	1				1		4	10	4	15	5	41

Mortality from Gastro Enteritis, Enteritis, and Diarrhoea, during the year 1904, in the several Wards.

Month	Farnworth	Halton V.	Simms C's	Victoria	Waterloo	West Bank	Total		Gastro Ent.		Enteritis		Diarrhoea		Total
January ...			1			2	3		2		1				3
February ...				1	1	2	4		1		2				3
March ...				1	3		4				4				4
April ...					1	1	2				2				2
May ...			1		2	3	6				5		1		5
June ...			1	1		3	5		1		2				3
July ...			1	4	9	2	16		7		8				15
August ...	1	2	9	8	7	7	34		5		16		3		29
September ...		1	3	4	2	2	12		2		7		1		11
October ...	1				1		2								1
November ...				1	1	1	3				1				2
December ...			1	1			2						1		2
	2	3	17	21	27	23	93	18		48	9	12	6	78	15

The following table shews the distribution of Enteric fever in the various Wards since 1890:—

	F'rnw'th	Halton	Simms Cross	Victoria	Wat'rloo	West Bank	TOTAL
1890	1	28	8	23	33	12	105
1891	3	11	14	18	10	12	68
1892	1	21	23	17	22	19	103
1893	6	38	60	26	22	30	182
1894	3	28	15	19	16	27	108
1895	—	13	8	9	13	9	52
1896	8	18	15	35	81	57	214
1897	5	6	23	8	24	10	76
1898	8	13	15	19	62	18	135
1899	2	24	33	33	29	7	128
1900	8	7	14	4	6	1	40
1901	4	23	20	19	34	11	111
1902	8	4	16	5	8	5	46
1903	8	3	15	7	12	3	48
1904	—	—	7	9	20	5	41
	65	237	286	251	392	226	1457

Return of Infectious Diseases notified, and shown in the various Wards in which they occurred, for year ending December, 1904.

WARD.	Smallpox.	Enteric Fever.	Scarlet Fever.	Diphtheria and Membranous Croup.	Erysipelas.	Puerperal, Relapsing or Continued Fever.	Cholera.	Typhus Fever.	Total.
Farnworth	—	—	7	8	—	—	—	—	15
Halton	—	—	2	20	4	—	—	—	26
Simms Cross	2	4	17	9	4	2	—	—	38
Victoria	2	12	9	6	—	1	—	—	30
Waterloo	2	20	13	2	2	—	—	—	39
West Bank.....	1	5	10	2	1	—	—	—	19
	7	41	58	47	11	3	—	—	167

A Table shewing the whole of the notifications during the year under the respective ages.

DISEASE.	At all ages	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
Small Pox	7	—	—	3	—	4	—
Cholera	—	—	—	—	—	—	—
Diphtheria	45	—	14	24	6	1	—
Membranous Croup.....	2	1	1	—	—	—	—
Erysipelas	11	—	—	2	1	7	1
Scarlet Fever	58	—	21	32	4	1	—
Enteric Fever	41	—	5	15	7	14	—
Continued Fever	—	—	—	—	—	—	—
Puerperal	3	—	—	—	1	2	—
Typhus Fever	—	—	—	—	—	—	—
Total.....	167	1	41	76	19	29	1

Mortality Return for year ending December 31st, 1904, for the Urban Sanitary District of Widnes, showing Mortality from all Classes at subjoined Ages :—

WARD.	At all Ages	Under 1 Year	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
Farnworth	49	11	4	5	2	18	9
Halton View	63	13	4	5	4	28	9
Simms Cross	101	34	11	6	3	35	12
Victoria.....	110	40	12	8	4	36	10
Waterloo	116	47	19	8	6	26	10
West Bank	80	28	17	6	2	22	5
Totals ...	519	173	67	38	21	165	55

Scarlet Fever—

There were 58 notifications ; of these 46 were removed to hospital.

Printed Instructions were distributed throughout the Borough. Carbolic Acid, Oil, and Soap were also supplied to the occupiers of the infected houses.

Smallpox—

Seven cases were notified—and removed to Barrow's Green Isolation Hospital. Every precaution was taken in dealing with the outbreak, by prompt isolation and disinfection, also by vaccination and re-vaccination of contacts.

Name of streets and house numbers where cases occurred.

Date.	Street.	Sex.	Age
Jan. 7	No. 14 Viaduct Street	Female	12
Jan. 17	No. 4 Marsh Street	do.	32
Jan. 17	No. 13 Alpha Street	do.	14
Feb. 4	No. 3 Rylands Street	Male	27
Mar. 15	No. 10 Vine Street	do.	48
July 20	No. 4 Marsh Street	Female	6
July 30	No. 4 Marsh Street	do.	42

Erysipelas—

Eleven cases of Erysipelas were notified as against 17 in 1903, 13 in 1902, and 15 in 1901.

Puerperal Fever—

There were 3 cases notified during the past year, as against 2 in 1903, none in 1902, and 3 in 1901.

Diphtheria and Membranous Croup—

These diseases are responsible for 45 notifications of the former, and 2 of the latter ; of these 22 were removed to the hospital.

Measles—

10 deaths occurred during the year, as against 2 in 1903.

Whooping Cough—

4 as against 12 in 1903.

Measles and Whooping Cough are not notifiable diseases.

Phthisis—

14 deaths occurred, as against 7 in 1903, and 15 in 1902.

Isolation Hospital—

The following Table gives the number of cases treated in the Isolation (Fever) Hospital since 1890. See also return from Isolation Hospital shewing other cases treated there.

			SCARLET FEVER.				ENTERIC FEVER.			
			No.	Treated	Deaths	Deaths	No.	Treated	Deaths	Deaths
			Notified	at	at	at	Notified	at	at	at
				Hospital	Hospital	Home		Hospital	Hospital	Home
1890	...	...	200	41	3	6	109	51	5	9
1891	...	...	64	15	1	2	67	31	6	0
1892	...	...	109	11	1	2	107	35	9	16
1893	...	...	31	2	0	1	186	73	21	11
1894	..	...	459	31	1	23	116	31	8	15
1895	...	...	601	82	5	21	54	42	6	5
1896	...	...	154	33	0	3	214	76	17	17
1897	...	...	49	13	0	2	76	48	10	6
1898	...	...	36	9	1	0	135	93	10	11
1899	...	...	211	26	0	11	128	64	12	10
1900	...	...	158	0	0	7	40	28	5	0
1901	...	...	35	1	0	0	110	97	15	2
1902	...	...	75	50	1	1	46	38	13	2
1903	...	..	231	159	4	3	48	37	5	6
1904	...	...	58	46	1	0	41	35	6	2
			2471	519	18	82	1477	779	148	92

Isolation Hospitals—

Number of patients treated during 1904—

	Small Pox	Typhoid	Typhus	Diphtheria	Scarlet Fever	Unclassified	Total
In Hospitals, Jan.							
1st, 1904.	0	2	0	4	18	0	
Admitted up to							
Dec., 1904	7	35	0	22	46	0	
Totals	7	37	0	26	64	0	134
Deaths	0	6	0	4	1	0	11
Patients still in							
Hos. Dec. 31st	0	7	0	0	0	0	7
1904							

N.B.—All the Small Pox cases were treated at Barrows Green Small Pox Hospital.

Accident Hospital—

The Accident Hospital was opened in the year 1878, and during the year 1904, 92 In-door Patients, and 115 Out-door Patients were

treated, making a grand total of 1609 cases that have been treated at this Institution. The work has been carried on most satisfactorily.

Water Supply—

Copy of the last analysis of water by Pro. Dr. Campbell Brown, D.Sc., County Analyst.

Water Analysis—

Samples of water from Stocks Well and Netherley have been submitted to Dr. Campbell Brown for analysis, who reports as follows :—

	Stocks Well		Netherley	
	In parts per 100,000		In parts per 100,000	
	1903	1904	1903	1904
Total solid matter in solution ...	14'4	16'12	15'2	16'4
Oxygen required to oxidise in 15 min	'004	'000	'001	'001
Do. do. do. in 3 hrs	'006	'003	'002	'003
Ammonia	'001	'000	'002	'002
Ammonia from organic matter by distillation with alkaline per- manganate	'0005	'001	'002	'003
Nitrogen as Nitrates	'22	'175	'3	'35
Combined Chlorine	1'76	1'87	2'23	2'57
Hardness Temporary	3°·21	2°·0	3°·27	2°·93
Do. Permanent	7°·14	9°·8	6°·72	8°·5
Do. Total	10°·35	11°·8	9°·99	11°·43

Stocks Well—Clear, colourless, alkaline, no organisms.

Netherley—Clear, colourless, faintly acid reaction, almost free from organisms.

Remarks—

These are very excellent samples of water for domestic use.

(Signed) J. Campbell Brown, D.Cc.

From a paper read by Dr. Campbell Brown before the Members of the British Association meeting held at Southport, 1903, he stated that the water supplied to Widnes, was derived from the deep bore wells in the Keuper Sandstone, and was without organisms of any kind.

The quantity of water supplied during the 12 months ending 31st December, 1904, amounts to 1,003,485,745 gallons of which 642,426,000 gallons were for manufacturing purposes, and 361,059,745 gallons for domestic and sanitary purposes, being an increase of 39,296,058 gallons for sanitary purposes.

Sanitary Work Accomplished -

The Sanitary Inspector carries out the work entrusted to him energetically and satisfactorily. I have pleasure in appending his annual report for 1904.

Insanitary Property—

Several cases have been dealt with during the year, and orders obtained for closing and demolition *vide* Sanitary Inspector's Report.

Works—General—

Escape of Gases—

A few complaints have been made about gases escaping from several works. The same were duly reported to the Manager of works, who invariably gave attention in endeavouring to prevent further escape.

The quantity of Sulphuretted Hydrogen Gas escaping is very much less than in former years.

Milkshops, &c. —

These have also been duly inspected, and when irregularities have been pointed out they have been duly attended to.

A Circular has again been posted throughout the Borough, similar to that of last year.

Food and Drugs Acts—

SAMPLES TAKEN YEAR, 1904.

I am indebted to Superintendent Strickland, of the County Police for the following report :—

Return of Samples taken under the Food and Drugs Act, for the year, 1904.

No.	Whether Prosecution or Not.	Description of Food or Drug	Result of Analysis.
1	Not	New Milk	Genuine
2	„	do	„
3	„	Butter	„
4	„	do.	„
5	„	New Milk	„
6	„	do.	„
7	„	do.	„
8	„	do.	Contained 2·70% fat, 8·79% other solids, 11·49% total solids, deficient in Cream.
9	„	do.	Genuine
10	„	Lard	„
11	„	New Milk	„
12	„	Butter	„
13	„	New Milk	„
14	„	Damson Jam	„
15	„	New Milk	„
16	„	do.	„
17	„	Irish Whisky	„
18	„	Butter	„
19	„	Rum	„
20	„	Lard	„
21	Yes, fined 20/- and costs	New Milk	2·75% fat, 7·14% other solids, 9·89% total solids, and that 18 parts of water had been added to every 100 pints of milk.

No.	Whether Prosecution or Not.	Description of Food or Drug.	Result of Analysis.
22	Not	Scotch Whisky	Genuine
23	"	New Milk	"
24	"	do.	"
25	"	do.	"
26	"	do.	"
27	"	do.	"
28	"	do.	"
29	"	do.	"
30	"	do.	"
31	"	do.	"
32	"	do.	"
33	"	do.	"
34	"	do.	"
35	Yes, fined 10/- and costs	Butter	14% water, 70% fats, other than butter.
36	Not	New Milk	Genuine
37	"	do.	"
38	"	Butter	"
39	"	Scotch Whisky	"
40	"	Irish Whisky	"
41	"	Vinegar	"
42	"	Rum	"
43	"	Lard	"
44	"	Black Currant Jam	"
45	"	Irish Whisky	"
46	"	New Milk	"
47	"	do.	"
48	"	do.	"
49	"	do.	"
50	"	do.	"
51	"	do.	"
52	"	do.	"
53	"	do.	"
54	"	do.	"
55	Yes, fined £2 and costs	Vinegar	Contained not less than 90% dilute acetic acid of 44% strength and not more than 10% of genuine vinegar.
56	Not	New Milk	Genuine
57	"	do.	"
58	"	Brandy	"
59	Yes, fined £2 and costs	do.	18.3 degrees under proof, and that it consists of grain spirit, coloured and flavoured to imitate Brandy.

No.	Whether Prosecution or Not.	Description of Food or Drug.	Result of Analysis.
60	Not	Butter	Genuine
61	„	New Milk	„
62	„	Margarine	„
63	„	New Milk	„
64	Not suffi- cient evidence to prosecute	Malt Vinegar	Contained about $\frac{1}{3}$ of its bulk dilute acetic acid in addition to malt vinegar.
65	Not	New Milk	Genuine
66	„	do.	„
67	„	Milk	„
68	„	New Milk	„
69	„	do.	„
70	„	do.	„
71	„	Milk	„
72	„	Scotch Whisky	„
73	„	Rum	„

45 Samples of Milk of which one only was found to have had water added.

R. STRICKLAND, Superintendent.

Factory and Workshop Act, 1901—

This Act has been in force since the 1st January, 1902, and in compliance with Section 132 I have to report specifically upon the administration of the same, and also to send a copy of the Report to the Secretary of State. I therefore beg to report that very careful attention has been given to this work. A Register is kept of all the Workshops in the Borough, from which I extract the following information :—

Total number of Workshops in the Borough 77
including— 24 Bakehouses,
5 Laundries,
48 other Workshops.

Total number of lists of Outworkers received by the Sanitary
Inspector during 1904 6
representing— Employers 3.
Outworkers 6.

Outworkers premises inspected... .. 6

Bakehouses—

The Bakehouses, in the Borough are generally satisfactory and constructed in accordance with the requirements of the Act and are periodically cleansed under the supervision of the Sanitary Inspector.

No of Underground Bakehouses in Borough in use, nil.

Sanitary Conveniences—

Workshops provided with W.C.	22	
„ „ Privies	56	78

Refuse Removal—

This work continues to receive the special attention of the Town Council, and is carried out very satisfactorily under the direction of a Special Sub-Committee of the Health Committee.

Surveyor's Report—

Plans have been approved for 35 dwelling-houses, 10 other buildings, and 23 alterations.

Sewer Flushing & Ventilation—

The sewers have been periodically flushed and repaired where required, and the ventilating shafts maintained in good order and repair.

Slaughterhouses—

All the slaughterhouses, on inspection, were found clean and kept in good order.

Lodginghouses—

The lodginghouses were also inspected and found clean, and in a satisfactory condition.

I am, Gentlemen,

Your obedient Servant,

D. U. MACLENNAN,

Medical Officer of Health.

BOROUGH OF WIDNES.

SPECIAL REPORT OF MEDICAL OFFICER OF HEALTH
UPON THE PREVALENCE OF DIPHTHERIA.*To the Town Council of the Borough of Widnes.*

GENTLEMEN,

Referring to the Letter from the Local Government Board, dated the 19th May, 1904, intimating that they observe from the returns made to the Registrar-General for the Quarter ended the 2nd ulto., that seven deaths from diphtheria are reported to have occurred in the Borough of Widnes, and requesting that a Report be prepared by me upon the recent fatal prevalence of Diphtheria in the Borough, and in accordance with the instructions of the Town Council I beg to report as follows :—

From the appended table taken from the cases notified by the local practitioners, and duly registered in the Town Hall Register, there were 30 cases notified between November, 1903, and May, 1904. Of these, fourteen cases were removed to the Borough Isolation Hospital, Crow Wood, and sixteen cases were treated at home. Seven cases died at home, and two cases died in hospital. Several of the cases were complicated with laryngitis and pneumonia.

The appended table, shows at a glance, that the majority of the cases occurred in the immediate vicinity of open privies and ashpits. In two instances the drainage was found to be defective. In many cases I have observed cats eating garbage thrown into the open ashpit, and, I fear, that having regard to the general tenderness of the children towards these animals, a cause of infection may be found in this fact.

The milk supplied to the town is generally of good quality, and I do not attribute any infection to this source. The water supply is excellent, being obtained from deep artesian wells in the redstone formation at Stocks Well and Netherley, in the neighbourhood of the Borough.

In those cases traced to imperfect sewerage and drains, the Sanitary Inspector gave prompt notice to the owners of the property in question, and the nuisances were remedied.

Wherever open ashpits were found containing decomposing animal or vegetable matter giving off foul odours, and contaminating the atmosphere, immediate action was taken to have the ashpit emptied and disinfected with Chloros and Chloride of lime, and in the removal of nightsoil, every sanitary precaution was taken to obtain clean premises, and to prevent contamination of the streets and surroundings.

There is, in my opinion, sufficient infective material in the porous bricks and perished mortar of many ashpits to account for outbreaks of disease.

The cases removed to the Borough Isolation Hospital were attended by the private medical advisers of the patients, and the necessary medicines and anti-diphtheric serum were supplied at the Corporation's expense.

Forty bottles of anti-diphtheric serum from the Lister Institute of Preventative Medicine were supplied to the medical practitioners on application at the Town Hall, and arrangements were made with the Police Authorities to have a supply ready at hand for use at all times, either in the night or in the day time.

Immediately upon removal of a case to hospital the Sanitary Inspector, or his Assistant, took the infected clothing to the Manlove Alliott Disinfector at the hospital, and had the same thoroughly disinfected. Two vans were employed, one to bring the infected clothing, curtains, carpets, &c., and the other van to return the same after disinfection. While the clothing was being removed, the rooms occupied by the patients were disinfected with sulphur dioxide and the remainder of the premises with chloros.

I am, Gentlemen,

Yours faithfully,

D. U. MACLENNAN,

MEDICAL OFFICER OF HEALTH.

July 1st, 1904.

BOROUGH OF WIDNES.

PREVALENCE OF DIPHTHERIA, 1903-4.

TABLE OF CASES NOTIFIED.
FARNWORTH WARD.

Residence	Date 1903	Sex		Age	Condition of Drains	Where Isolated	Result	Remarks
		M	F					
Highfield Road, 6 ...	Dec. 28 1904	1		5	Good	Home	Recovered	Open Privy
Cooper Street, 28 ...	Jan. 25		1	5	"	"	Died	W. W. Closet
Farnworth Street, 86	Mar. 16	1		16	"	"	Recovered	Open Privy
Birchfield Road, 40 ...	Jan. 11	1		6	"	"	Died	Open Privy
Moorfield Road, 3 ...	Jan. 3		1	4	"	"	Died	Open Privy

SIMMS CROSS WARD.

Residence	Date	Sex		Age	Condition of Drains	Where Isolated	Result	Remarks
		M	F					
Gossage Street, 2a ...	Nov. 9 1903	1		4	Good	Home	Recovered	Open Privy
" " ...	" "		1	2	"	"	"	Open Privy
Muspratt Street, 5 ...	Dec. 28	1		5	"	Hosp.	"	Open Privy
Bower Street, 17 ...	Jan. 13 1904	1		7	"	Home	"	Open Privy
South Street, 16 ...	Mar. 10	1		23	"	"	"	W. W. Closet
Albert Road, 136 ...	April 19	1		8	"	Hosp.	"	Open Privy— Found Ventilating Shaft choked
Esther Street, 25 ...	May 3	1		3½	"	"	Still in Hos.	Open Privy
" " ...	May 9		1	9	"	"	"	Open Privy
Carlton Terrace, 8 ...	May 14		1	5	"	Home	Died	Open Privy

1903 HALTON WARD.

Halton View, 1 ...	Dec. 7 1903	1		8	Good	Hosp.	Recovered	Defective bath, waste pipe, and eavegutters Water Closet
" " ...	Dec. 21	1		12	"	"	"	
Warrington Rd., 22 ...	Jan. 15 1904	1		54	"	"	Died	Open Privy
" " ...	" "	1		19	"	Home	Died	Do. Too ill to be removed to Hospital
Doward Street, 22 ...	Mar. 8	1		3	"	Hosp.	Died	Open Privy
Joseph Street, 11 ...	April 19	1		8	"	"	Recovered	Open Privy
Halton View, 91 ...	May 7	1	1	11	"	"	"	W. W. Closet choked and drain defective
William Street, 5	May 10	1		4	"	"	"	Open Privy— Premises over- crowded
William Street 12 ...	May 12	1		3	"	Home	"	Open Privy
Peel House Lane, 32	"		1	12	"	"	"	Open Privy Premises over- crowded

1903 VICTORIA WARD.

Widnes Road, 2 ...	Dec. 17 1903	1		13	Good	Hosp.	Recovered	Water Closet
Ellis Street, 16	Mar. 15 1904	1		3½	"	Home	"	W. W. Closet
Eleanor Street 26 ...	Mar. 10	1		6	"	Hosp.	"	Open Privy
Victoria Road ...	Mar. 24	1		3	"	"	Still in Hos.	Water Closet

1903 WATERLOO WARD.

Church Street, 52 ...	Nov. 12 1903	1		5½	Good	Home	Died	Open Privy
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1904 WEST BANK WARD.

Davies Street ...	Jan. 25 1904	1		5	Good	Home	Died	Open Privy
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PUBLIC HEALTH DEPARTMENT,

TOWN HALL, WIDNES.

SPECIAL REPORT ON THE OUTBREAK OF TYPHOID
FEVER IN THE NEIGHBOURHOOD OF
CROMWELL STREET AND NELSON STREET.

To the Health Committee of the Borough of Widnes.

GENTLEMEN,

In accordance with the resolution of the Health, &c., Committee of the 30th December, 1904, I have made an inspection of the property in Nelson and Cromwell Streets, and beg to submit the following report :

From the 12th October to the 12th December, 1904, thirteen cases of Enteric Fever were notified as occurring in Nelson and Cromwell Streets, out of a total of 41 cases reported during the year. Of these thirteen cases, nine occurred in Nelson Street and four in Cromwell Street. Of the nine cases in Nelson Street three occurred in one house (No. 30), and two in another house (No. 21), while two cases occurred in the same house in Cromwell Street (No. 9).

The houses where the disease occurred are as follow :—

21 (two cases), 23, 30 (three cases), 47, 55 and 57, Nelson Street, 9 (two cases), 52 and 56, Cromwell Street.

Of the thirteen cases, five were males and eight females

The ages of the affected males were 4, 10, 18, 38 and 40, and those of the females were 2, $5\frac{1}{2}$, 10, 12, 14, 19, 21 and 35.

All the cases were removed to the Hospital, and there were two deaths, one male aged 40, and one female aged 10.

Disinfection of the bedding and premises was thoroughly carried out in all cases, and the privies, &c., emptied and disinfected with Chloros solution.

On visiting the property, I found the dwelling parts of the buildings dry and in a fair state of repair. The back premises of most of the houses, however, are in a very different condition.

With one exception (No. 30, Nelson Street), all the houses in which Enteric occurred are provided with privies and ashpits, many of the latter being without roofs. The ashpits are in many cases without doors, and so open directly on the back passage, while some of them have defective walls, allowing the contents to be strewn both into the yards and passages. The privies and ashpits are deep and mostly wet and foul. Some of them have, at one time, been filled up to within a few inches of the ground level, but this, instead of being an advantage, has rather increased the nuisance, as liquid excreta may be seen percolating through the loose walls into the yards. The unroofed ashpits are of course wet, some receiving all the water from the privy roofs, owing to defective spouting.

From Nos. 19 to 31, Nelson Street inclusive, the privies were originally "modern conveniences," and afterwards were transformed into open privies. These, without exception, are deep, wet and foul.

The yards in nearly all the houses are badly paved, and contain holes full of water. This is mostly due to the fact that the sink waste pipe opens at the top of the yard, whence the waste water reaches the trap at the bottom of the yard by an open channel. Those yards in which the sink waste opens directly over the gully trap, are in much better condition.

With regard to the causation of this outbreak, it would be impossible to speak definitely, but it is interesting to note that of the first seven cases six were females. This would seem to negative the suggestion that the disease had been contracted by men at work and brought to the district.

Enteric Fever has occurred in this district for years, and there is no doubt that the bad state of the sanitary conveniences, if it does not actually cause the outbreaks, contributes largely to them.

Nothing has been traced to either the milk or water supply.

Having regard to the great importance of health, of clean dwellings and surroundings, and with a view to preventing, or at

least minimising the recurrence of Enteric Fever, in this quarter, I would recommend special attention to the privies with the view to abating the nuisances arising therefrom by the substitution of a water carriage system. This conversion might be done gradually, and would be comparatively simple, as the district is properly drained and sewered. It would also be an advantage if all the ashpits were roofed in, provided with proper doors, and made smaller by being filled up and thoroughly cemented. The walls of many would also need repair. Those yards in which the sink waste runs down an open channel would be greatly improved were a gully trap placed directly under the waste pipe and the water so conveyed to the drain. The defective paving of many of the yards should also be attended to.

C. S. BREBNER,

M.D. (Edin.), D.P.H. (Camb.)